

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-39 and 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The “system” as described in the claims includes components that may be embodied as solely software (page 5, lines 26-28 of the Specification). Software per se is not statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass (U.S. 2005/0060643) in view of Kephart (U.S. 6,732,149).

As per claim 1, Glass teaches a system that facilitates extracting data in connection with spam processing, comprising: a component that receives a message and extracts a set of features

associated with some part, content or content type of a message (paragraphs 0050-0056); and an analysis component that at least examines characters within a subject line of the message in connection with building a filter (0050-0056). Glass does specifically teach that the analysis component examines the consecutiveness of the characters in the subject line. Kephart teaches the examination of the consecutiveness of characters within a spam filtering system (column 13, line 65 - column 14, line 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the examination of character consecutiveness, as taught by Kephart in the system of Glass, as this teaching would further enhance the spam filtration process, by adding an additional layer of security. Both inventions are from the same field of endeavor, namely the efficient filtering of unwanted e-mail messages.

As per claim 2, Glass-Kephart further teaches that the analysis component determines frequency of consecutive repeating characters within the subject line of the message (Kephart: column 13, line 65 - column 14, line 25).

As per claim 3, Glass-Kephart further teaches that the characters comprise letters, numbers, or punctuation (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 4, Glass-Kephart further teaches that the analysis component determines frequency of white space characters within the subject line of the message (Glass: 0050-0056, 0249; Kephart: column 13, line 65 - column 14, line 25).

As per claim 5, Glass-Kephart further teaches that the analysis component determines distance between at least one alpha-numeric character and a blob (Glass: 0050-0056, 0065; Kephart: column 13, line 65 - column 14, line 25).

As per claim 6, Glass-Kephart further teaches that the analysis component determines a maximum number of consecutive, repeating characters and stores this information (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 7, Glass-Kephart further teaches that the analysis component establishes ranges of consecutive, repeating characters, whereby messages can be sorted by their respective individual count of consecutive repeating characters (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25). Glass-Kephart further teaches scoring the messages based on a similarity calculator (Glass: 0167), but does not specifically teach that the ranges correspond to varying degrees of spaminess. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a specific degree of spam-likelihood, as this teaching is well known in the art of spam filtration. The motivation for doing so lies in the fact that having a degree of likelihood that the message is spam would enable more sophisticated and sensitive filtering, such that potentially legitimate messages need not be filtered as spam, for example.

As per claim 8, Glass-Kephart further teaches that the analysis component further determines content type associated with the message (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 9, Glass-Kephart further teaches that the analysis component compares the content type of a current message to stored content types of a plurality of other messages to facilitate determining whether the message is spam (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 10, Glass-Kephart further teaches that the content type is case-sensitive (Glass: 0119).

As per claim 11, Glass-Kephart further teaches that the content type comprises a primary content-type and a secondary content-type (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 12, Glass-Kephart further teaches that the analysis component further determines time stamps associated with the message (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 13, Glass-Kephart further teaches that the analysis component determines a delta between time stamps (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 14, Glass-Kephart further teaches that the delta is between a first and a last time stamp (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 15, Glass-Kephart further teaches that the analysis component determines at least one of: a percentage of white space to non-white space in the subject line of the message and a percentage of non-white space and non-numeric characters that are not letters in the subject line of the message (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 16, Glass-Kephart further teaches that the filter is a spam filter (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 17, Glass-Kephart teaches the system of claim 1, but does not specifically teach that the filter is a parental control filter. It would have been obvious to one of ordinary skill in the art to include this limitation, as the use of parental control filters is very well known in the art of message filtering. The motivation for the inclusion lies in the fact that parents can

prevent their children from receiving objectionable material, which would further enhance the security aims of Glass-Kephart.

As per claim 18, Glass-Kephart further teaches a machine learning system component that employs at least a subset of extracted features to learn at least one of spam and non-spam (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 19, Glass-Kephart further teaches a system that facilitates extracting data in connection with spam processing, comprising: a component that receives an item and extracts a set of features associated with a message (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25); and an analysis component that determines whether an embedded message or attachment is associated with the message (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 20, Glass-Kephart further teaches that the analysis component identifies a type of embedded message or attachment to facilitate predicting whether the message is spam (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 21, Glass-Kephart further teaches a component that employs at least a subset of the extracted features to populate at least one feature list (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 22, Glass-Kephart further teaches that at least one feature list is any one of a list of good users, a list of spammers, a list of positive features indicating legitimate sender, and a list of features indicating spam (Glass: 0033, 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 23, Glass-Kephart further teaches a component that examines at least a portion of the message body (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 24, Glass-Kephart further teaches that the component examines at least a beginning portion of the message body (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 25, Glass-Kephart further teaches that the component determines at least one of a percentage of white space to non-white space in the message body and a percentage of non-white space and non-numeric characters that are not letters in the message body (Glass: 0050-0056, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 26, Glass-Kephart further teaches that the component determines a percentage or a number of consecutive lines of a message body to examine (Glass: 0050-0056; Kephart: column 13, line 65 - column 14, line 25).

As per claim 27, Glass-Kephart further teaches that the component examines the message body for the presence of at least one blob or consecutive repeating characters (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 28, Glass-Kephart further teaches the characters comprising letters, punctuation, and numbers (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 29, Glass-Kephart further teaches a method that facilitates spam detection and prevention comprising: receiving a plurality of messages, the plurality comprising at least a first and second message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65

- column 14, line 25); extracting at least a subset of information from the plurality of messages, the information being from at least one of a subject line, a content-type header, a received header, and a message body; and analyzing the subset of information to generate one or more features to facilitate training a filter (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 30, Glass-Kephart further teaches that analyzing the subset of information comprises determining a number of consecutive repeating characters within the subject line or the message body of the message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 31, Glass-Kephart further teaches that the characters comprise letters, numbers, or punctuation (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 32, Glass-Kephart further teaches that analyzing the subset of information comprises determining a frequency of white space characters within the subject line of the message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 33, Glass-Kephart further teaches that analyzing the subset of information comprises determining a distance between at least one alpha-numeric character and a blob (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 34, Glass-Kephart further teaches that analyzing the subset of information comprises: determining a maximum number of consecutive repeating characters and storing this information; and establishing ranges of consecutive repeating characters, the ranges

corresponding to varying degrees of spaminess, whereby messages can be stored by their respective individual count of consecutive repeating characters (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 35, Glass-Kephart further teaches that analyzing the subset of information comprises: determining content type associated with the message; and comparing the content type of a current message to stored content types of a plurality of other messages to facilitate determining whether the message is spam (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 36, Glass-Kephart further teaches determining time stamps associated with the message; and determining a delta between a first time stamp and a last time stamp, the first time stamp being located in a Received header, and the last time stamp being located in a Date header at the message's destination (Glass: 0050-0056, 0065, 0249, 0382, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 37, Glass-Kephart further teaches that analyzing the subset of information comprises determining a percentage or a number of consecutive lines of a message body to examine at least one of: a percentage of white space to non-white space in the subject line of the message and a percentage of non-white space and non-numeric characters that are not letters in the subject line of the message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 38, Glass-Kephart further teaches that analyzing the subset of information comprises determining whether an embedded message or an attachment exists in the message and identifying a type of embedded message or attachment to facilitate predicting whether the

message is spam (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 39, Glass-Kephart further teaches that analyzing the subset of information comprises examining at least a beginning portion of the message body (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 40, Glass-Kephart further teaches a computer-readable medium having stored thereon the following computer executable components: a component that receives a message and extracts a set of features associated with some part, content or content type of a message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25); an analysis component that examines at least consecutiveness of characters within a subject line of the message in connection with building a filter (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25); a component that determines whether an embedded message or attachment is associated with the message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25); and a component that determines a percentage or a number of consecutive lines of a message body to examine and that examines the message body for the presence of at least one blob or consecutive, repeating characters (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25).

As per claim 41, Glass-Kephart further teaches a system that facilitates printing from a web page comprising: means for receiving a plurality of messages, the plurality comprising at least a first and a second message (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25); means for extracting at least a subset of information from the

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plurality of messages, the information being from at least one of a subject line, a content-type header, a received header, and a message body (Glass: 0050-0056, 0065, 0249, Table 1; Kephart: column 13, line 65 - column 14, line 25); and means for analyzing the subset of information to generate one or more features to facilitate training a filter, the means for analyzing the subset of information comprising: means for determining a number of consecutive repeating characters within the subject line or the message body of the message; means for determining a delta between a first time stamp and a last time stamp associated with the message (Glass: 0050-0056, 0065, 0249, 0382, Table 1; Kephart: column 13, line 65 - column 14, line 25); means for determining whether an embedded message or an attachment exists in the message and identifying a type of embedded message or attachment to facilitate predicting whether the message is spam (Glass: 0050-0056, 0065, 0249, 0382, Table 1; Kephart: column 13, line 65 - column 14, line 25); and means for determining a percentage of consecutive lines of a message body to examine at least one of: a percentage of white space to non-white space in the subject line of the message and a percentage of non-white space and non-numeric characters that are not letters in the subject line of the message (Glass: 0050-0056, 0065, 0249, 0382, Table 1; Kephart: column 13, line 65 - column 14, line 25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is (571)272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571/272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tanim Hossain
Patent Examiner
Art Unit 2145

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145